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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,178	03/19/2004	Shiro Yamagishi	61282-067	6750
20277	7590	05/05/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			SCHNEIDER, JOSHUA D	
			ART UNIT	PAPER NUMBER
			2182	
DATE MAILED: 05/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/804,178	Applicant(s) YAMAGISHI, SHIRO	
	Examiner Joshua D. Schneider	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The specification is objected to because the material in the summary of invention appears to be essentially a verbatim repetition of the claims. There is no need to repeat that which can be found elsewhere in its entirety. The purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention; see MPEP 608.01(d).

Drawings

3. Figures 2-7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependant claim. See MPEP § 608.01(n). Accordingly, the claim 4 not been further treated on the merits.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. With regards to claims 1 and 3, it is unclear how the register can hold two different values. In the art, a single register is generally limited to a single use, as it can only be referenced as a whole. There is nothing in the specification that makes it apparent how the third register is used to hold two different values at the same time.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent Application Publication 2002/0026543 to Tojima et al. in further view of U.S. Patent 5,708,849 to Coke et al.

10. With regards to claim 1, Tojima teaches a first register, which sets the start address of a ring buffer (paragraph 252-254), a second register which sets the number of DMA transfers from the start address to the end address of the ring buffer (paragraph 254-256), but does not clearly teach a third register which sets the difference between the end address and the start address of

the ring buffer. Coke teaches that difference between the end address and the start address was well known to be included in the information to perform a DMA transfer (amount of information to be transferred, column 1, lines 28-50). It would have been obvious to one of ordinary skill in the art to combine the amount of information to be transferred of Coke with the DMA controller of Tojima in order to reduce the processor load on the system.

11. With regards to claim 2, Tojima teaches wherein the second register is used as a register for setting the number of DMA transfers in a contiguous area including rectangular areas in the DMA transfer of a rectangular area included in an area (paragraph 252-254).

12. With regards to claim 3, Tojima fails to teach the address increment of a non-contiguous area. Coke teaches the third register is used as a register for setting the address increment of a non-contiguous area in the DMA transfer of a rectangular area included in an area. It would have been obvious to one of ordinary skill in the art to combine the amount of information to be transferred of Coke with the DMA controller of Tojima in order to reduce the processor load on the system.

13. With regards to claim 5, Tojima teaches in the case of ring buffer transfer, the program causes a computer to work as means for setting the start address of a ring buffer to a first register (paragraph 252-254), means for setting the number of DMA transfers from the start address to the end address of the ring buffer to a second register (paragraph 254-256), but does not clearly teach a third register which sets the difference between the end address and the start address of the ring buffer. Coke teaches that difference between the end address and the start address was well known to be included in the information to perform a DMA transfer (amount of information to be transferred, column 1, lines 28-50). Tojima teaches in the case of rectangular block

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transfer said program causes the computer to work as means for setting the start address at the start of transfer to said first register (paragraph 252-254), means for setting the number of DMA transfers in a contiguous area including rectangular areas to a second register (paragraph 254-256), but does not clearly teach means for setting the address increment of a non-contiguous area to the third register. Coke teaches that setting the address increment of a non-contiguous area to the third register (Figs. 3 and 6, column 5, line 48, though column 8, line 47). It would have been obvious to one of ordinary skill in the art to combine the amount of information to be transferred of Coke with the DMA controller of Tojima in order to reduce the processor load on the system.

Conclusion

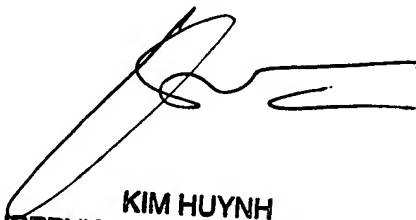
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,983,301 to Baker et al. teaches that using a start address and either a number of transfers or interchangeably the length of data to be transferred for DMA transfers. U.S. Patent 5,136,582 to Firoozmand teaches ring buffer transfers from non-contiguous locations. U.S. Patent 6,111,592 to Yagi et al. teaches that using a start address and either a number of transfers or interchangeably the length of data to be transferred for DMA transfers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS


KIM HUYNH
SUPERVISORY PATENT EXAMINER
4/29/06